

CLAIMS

1. A network printing system with a plurality of printing devices connected to a network, the system comprising:
 - a plurality of printing devices; and
 - a network device for converting print-request data sent from a print requester into a format for a specified printing device to create print data, and transmitting the print data to the specified printing device via the network, wherein the network device comprises:
 - a device information storage section for storing device information representing print specifications for the plurality of printing devices;
 - a document definition file storage section for storing a document definition file representing a definition of a document; and
 - a format converting section for converting the print-request data into the print format for the printing device based on the document definition file specified in the print-request data and the device information of the printing device.
2. The network printing system as claimed in claim 1, wherein the network device acquires the device information of the printing devices via the network and stores the device information in the device information storage section.
3. The network printing system as claimed in claim 1, further comprising a client device that registers the document definition file in the network device via the network and transmits the print-request data to the network device via the network.

4. The network printing system as claimed in claim 1, wherein the format converting section calculates a printable area of the printing device based on the device information, and calculates a print position of each item defined in the document definition file with reference to the printable area.
5. The network printing system as claimed in claim 1, wherein the network device determines whether the specified printing device is available for printing, and if the specified printing device is not available for printing, then uses device information of an alternative printing device to create the print data and transmits the print data to the alternative printing device.
6. A network printing device for conducting printing with a specified printing device among a plurality of printing devices connected to a network, the network printing device comprising:
 - a device information storage section for storing device information representing print specifications for the plurality of printing devices;
 - a document definition file storage section for storing a document definition file representing a definition of a document; and
 - a format converting section for converting, based on the document definition file specified in print-request data sent from a print requester and the device information of the printing device, the print-request data into a print format for the printing device.

7. The network printing device as claimed in claim 6, wherein the network printing device acquires the device information of the printing devices via the network and stores the device information in the device information storage section.

8. The network printing device as claimed in claim 6, wherein the network printing device is connected to a client device that registers the document definition file via the network and transmits the print-request data via the network.

9. The network printing device as claimed in claim 6, wherein the format converting section calculates a printable area of the printing device based on the device information, and calculates a print position of each item defined in the document definition file with reference to the printable area.

10. The network printing device as claimed in claim 6, wherein the network printing device determines whether the specified printing device is available for printing, and if the specified printing device is not available for printing, then uses device information of an alternative printing device to create the print data and transmits the print data to the alternative printing device.

11. A network printing method for conducting printing with a specified printing device among a plurality of printing devices connected to a network, the method comprising:

creating print data by converting print-request data sent from a print requester via the network into a format for the specified printing device; and

transmitting the print data to the specified printing device via the network,

wherein the creating of the print data comprises:

retrieving device information of the printing device specified in the print-request data from a device information storage section for storing device information representing print specifications for the plurality of printing devices;

retrieving a document definition file specified in the print-request data from a document definition file storage section for storing a document definition file representing a definition of a document; and

converting the print-request data into the print format for the printing device based on the retrieved document definition file and the retrieved device information of the printing device.

12. The network printing method as claimed in claim 11, further comprising:

acquiring the device information of the printing devices via the network and storing the device information in the device information storage section.

13. The network printing method as claimed in claim 11, further comprising:

registering the document definition file in the network device from a client device via the network; and

transmitting the print-request data from the client device via the network.

14. The network printing method as claimed in claim 11, wherein format conversion comprises:

calculating a printable area of the printing device based on the device information; and

calculating a print position of each item defined in the document definition file with reference to the printable area.

15. The network printing method as claimed in claim 11, further comprising:
determining whether the specified printing device is available for printing; and
if the specified printing device is not available for printing, creating the print data using device information of an alternative printing device and transmitting the print data to the alternative printing device.